

Title (en)

HEATING SYSTEM FOR A FLOOR OF A CABIN OF AN INDUSTRIAL VEHICLE

Title (de)

HEIZSYSTEM FÜR EINEN BODEN EINES FÜHRERRAUMS EINES INDUSTRIEFAHRZEUGS

Title (fr)

SYSTÈME DE CHAUFFAGE DESTINÉ À UN PLANCHER D'UNE CABINE D'UN VÉHICULE INDUSTRIEL

Publication

**EP 3408135 A1 20181205 (EN)**

Application

**EP 17704404 A 20170126**

Priority

- IT UB20160267 A 20160126
- EP 2017051700 W 20170126

Abstract (en)

[origin: WO2017129709A1] Heating system for a floor of a cabin of an industrial vehicle, wherein a control valve (11) interposed along a return conduct (9) of a cabin heating system (4) is movable between a first position establishing a direct return of the fluid and a second position where at least part of the fluid flowing through the control valve (11) is diverted to an input (13-a) of a serpentine (13) placed over a floor of the cabin and integrated with a cabin floor mat (16) and containing a plurality of energy-storing elements (17) made in a material that changes its aggregation state from solid to liquid and vice versa by receiving/delivering heating energy. The control valve (11) is set in the second position when a detected mat temperature T<sub>mat</sub> falls below a first limit T<sub>low</sub> so that a first energy storing phase is realized and the thermal energy of the fluid flowing in the serpentine (13) is transferred to said energy-storing elements (17) changing their aggregation state from solid to liquid. The control valve (11) is set in the first position when the detected mat temperature T<sub>mat</sub> overcomes a second upper limit T<sub>high</sub> so that a second energy delivery phase is realized and the thermal energy previously stored in the energy-storing elements (17) is supplied to the exterior of the mat (16) when the energy-storing elements (17) change their aggregation state from liquid to solid.

IPC 8 full level

**B60N 3/04** (2006.01); **B60H 1/00** (2006.01); **F28D 20/02** (2006.01)

CPC (source: EP RU US)

**B60H 1/00** (2013.01 - RU); **B60H 1/00271** (2013.01 - EP US); **B60H 1/00295** (2019.04 - EP US); **B60N 3/04** (2013.01 - RU); **B60N 3/048** (2013.01 - EP); **B60H 1/00492** (2013.01 - EP US); **B60H 2001/00307** (2013.01 - EP)

Citation (search report)

See references of WO 2017129709A1

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Designated extension state (EPC)

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**WO 2017129709 A1 20170803**; AU 2017211960 A1 20180712; AU 2017211960 B2 20210624; BR 112018015194 A2 20181226; BR 112018015194 B1 20230214; CN 108495769 A 20180904; CN 108495769 B 20200821; EP 3408135 A1 20181205; EP 3408135 B1 20191113; ES 2770605 T3 20200702; IT UB20160267 A1 20170726; RU 2018130523 A 20200227; RU 2018130523 A3 20200227; RU 2716520 C2 20200312

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